

Amendments to the Specification:

Please replace the paragraph beginning at page 2, line 21 as with the following amended paragraph:

In one aspect, the invention relates to transgenic animals, e.g., non-human mammals, overexpressing a 4q35 gene. The ~~[[4q35]]~~ 4q35 gene can be FSHD region gene 1 (*FRG1*), FSHD region gene 2 (*FRG2*), or adenine nucleotide translocator-1 gene (*ANT1*). In some embodiments, the transgenic animal overexpresses a 4q35 gene in some of its cells, e.g., is heterozygous. In other embodiments, the transgenic animal overexpresses one or more 4q35 genes in all of its cells, e.g., is homozygous. In some embodiments, the overexpression is due to additional copies of a 4q35 gene; in other embodiments, the overexpression is due to the presence of a promoter that allows increased expression of a 4q35 gene. In some embodiments, the promoter is an inducible promoter. In some embodiments, the 4q35 gene is overexpressed in a tissue-specific manner, e.g., only overexpressed in muscle cells.